

ABSTRACT OF THE DISCLOSURE

Incident signal beam pulses are transmitted by an on-state region, and an optical path for the signal beam pulses is spatially switched in an optical switch. Signal beam pulses transmitted by the on-state region of the optical switch are detected at a pixel corresponding to a transmitting region of a photo-detector equipped with a plurality of pixels. A timing computation unit acquires position information of a pixel at which a predetermined signal beam pulse has been detected, on the basis of a result of the detection conducted by the photo-detector, and computes timing of arrival of a predetermined signal beam pulse at the optical switch on the basis of the position information of the pixel and time when a region corresponding to the pixel is brought to an on-state.